

CHAPTER 5

Non-Strategic Nuclear Weapons: Defining U.S. Objectives

Robert H. Gromoll and Dunbar Lockwood¹

Most Americans would agree that reductions in Russian non-strategic nuclear weapons (NSNW) are desirable. Such reductions could reduce the gap between the number of U.S. and Russian NSNW. They could mitigate the potential "loose nuke" problem by reducing the number of Russian weapons and storage sites. They could indirectly improve the safety and security of NSNW through associated transparency or monitoring. Reductions might also assuage concerns about the new Russian military doctrine by constraining, to a degree, Russia's non-strategic nuclear capability.

Some observers believe the United States has been remiss by not pushing for negotiated reductions in U.S. and Russian NSNW. Certainly, the possibility has not been overlooked; but formal negotiations on NSNW have not been pursued because there are no satisfactory answers to some very fundamental questions. Specifically:

- What are non-strategic nuclear weapons?
- Could we verify NSNW limits?
- Would U.S. nuclear warheads and associated facilities in Europe be included in the regime?
- Is there enough symmetry to negotiate?
- How much of a threat are NSNW?

We would need to resolve most, if not all, of these questions to be in a position to negotiate limits or reductions.

What are NSNW? Can Limits be Effectively Verified?

One cannot reliably classify a warhead as "non-strategic" solely on the basis of its delivery vehicle, physical characteristics, or deployment location. There are serious problems with all three approaches.

Warheads of the same type often can be used with both strategic and non-strategic delivery systems. For example, a U.S. gravity bomb could be delivered by either a Strategic Arms Reduction Treaty (START)-accountable heavy bomber based in the United States or by a dual-capable fighter based in Europe. In the first instance the warhead would be "strategic;" in the second it would be, at least for the United States, "non-strategic." The same kind of ambiguity applies to Russian systems. NSNW delivery systems are generally dual-capable; nuclear and conventional variants of these systems often cannot be readily distinguished. If the delivery vehicle were the unit of account, a formulation would be needed that does not inadvertently capture U.S. conventional capability. Otherwise, we would need to accept constraints on conventional delivery systems. It would not be in the United States' interest to allow conventional capabilities to be captured in such an agreement.

There would also be problems if nuclear warheads were the unit of account. Any monitoring regime designed to count non-strategic nuclear warheads would have to be able to distinguish them from strategic warheads. Even if that proved to be technically possible, it would undoubtedly require an intrusive regime that would raise concerns about inadvertently disclosing nuclear warhead design information. Conceivably, this might not be a problem for warhead types that would not remain in the active inventory; it would almost certainly be a problem for types that would remain operational.

In addition, warheads are inherently more difficult to monitor than delivery systems. They are smaller and more easily transported and concealed, so their storage and transport cannot be monitored with confidence by national technical means. Even with on-site inspections, intrusive technical measures using

radiation detection equipment would be needed to help confirm that containers declared to contain warheads actually did so. Such measures would be controversial on both sides. In any case, the required technology is still being developed. Joint U.S.-Russian work needs to be done on "information barriers" that would protect sensitive nuclear weapon design information when radiation detection equipment is being used. Furthermore, although it may be theoretically possible to develop measures that enable one to distinguish between types of warheads (those declared to be "strategic" and "non-strategic") using pre-validated warhead templates, we are a long way from any practical application of such techniques.

Defining NSNW on the basis of their location (i.e., whether they are co-located with non-strategic delivery systems) would also have drawbacks. Moscow claims that U.S. NSNW in Europe are "strategic systems" because of their ability to reach Russian territory. Russia, on the other hand, has no nuclear weapons located outside of its territory, so an approach based on warhead location could position Russia to press for a withdrawal of U.S. nuclear weapons from Europe. Also, warheads can be moved easily without detection, so location restrictions in the long run might not have any practical utility.

Would U.S. NSNW in Europe be Included?

NSNW arms control would require extensive consultations within NATO, but it is hard to envision an Alliance consensus on what to declare. For example, should NATO declare the number and location of U.S. nuclear weapons based in Europe? Should the weapons be subject to on-site inspections? It would not be in the United States' or the Alliance's interest to create openings for a divisive debate about NATO nuclear weapons.

Is There Enough Symmetry to Negotiate?

Another obstacle is that Russia undoubtedly has thousands more NSNW warheads than the United States and the uncertainties about how many they have are significant. Recently, JCS Chairman General Henry Shelton stated that the ratio was between 4 to 1 and 14 to 1 in Russia's favor.² Russia also has

many more types of non-strategic systems for delivering nuclear warheads. These include short-range ballistic missiles, artillery, sea-launched cruise missiles, ships, submarines, aircraft and air-defense missiles. The United States, by contrast, maintains only two types of non-strategic nuclear delivery systems: dual capable aircraft with gravity bombs, and sea-launched cruise missiles (SLCMs) for possible deployment on attack submarines.

Given the asymmetries in numbers of warheads and types of delivery systems—both favoring Russia—there may not be much of a Russian incentive to enter into negotiations. The costs to the United States and NATO to bring Russia to the table could be too high. The United States could offer little of significance in return for consequential Russian NSNW reductions.

How Much of a Threat Are NSNW?

The threat from Russian NSNW today stems mainly from the possibility that these nuclear weapons could fall into the wrong hands. This may call for non-proliferation solutions, like U.S. assistance for the safe and secure transport, storage, and dismantlement of Russian nuclear weapons, rather than formal arms control solutions. For this reason, the U.S. Cooperative Threat Reduction (CTR) program, which provides this kind of assistance, is invaluable and needs to be continued.

With the end of the Cold War, it is inconceivable that there would be an intentional nuclear exchange between Russia and NATO. The United States and Russia are no longer adversaries. On what basis, then, do Russian NSNW pose a threat? If the Russian threat is minimal, or only theoretical, then the purpose of NSNW arms control may simply be to design and manage a long-term safe and secure draw-down for weapons that are no longer needed. However, even if Russia poses no serious threat, Moscow may not draw the same conclusion about the United States and NATO. Russian observers apparently continue to view the United States and NATO as a threat to their security. U.S. military, political and economic dominance in the world today, NATO expansion, conflicts in the Balkans, missile defense and other points of contention, real or imagined, have

created asymmetries in the way Russians and Americans view one another. The United States, after all, “won” the Cold War and, whereas some in the United States may see Russia as marginalized, many Russians undoubtedly resent this “victory” and view the United States as an imposing and headstrong global presence. These different perspectives could lead to misperception and miscalculation. Threat, therefore, has not disappeared in our relations; there continues to be suspicion and risk that relations will deteriorate.

Many in the United States and Europe, for example, wonder if Russia is still committed to implementing its pledges under the 1991/1992 Presidential Nuclear Initiative (PNI). And what should we make of Russia's revised strategic concept that calls for greater reliance on nuclear weapons, even as the U.S. and NATO continue to reduce the role of their nuclear weapons?

In April 1999 the Russian Security Council met and signed three decrees on nuclear weapons issues. We have no details on these policies, but the Council announced that one of the documents concerned the development of “non-strategic” nuclear weapons. The Russian press reported that there are “good grounds” to believe Russia is working on a new generation of tactical nuclear weapons “to make limited nuclear war possible in theory.” Reportedly, the purpose of the effort is to give Russia the capability to carry out precision, low-yield, non-strategic nuclear strikes anywhere in the world.³ Thus, to compensate for the dramatic deterioration of its conventional forces and U.S. conventional superiority, Moscow appears to be increasing its reliance on tactical nuclear weapons for deterrence and possibly warfighting. There are also political and symbolic reasons for Russia's growing reliance on NSNW: many Russians view them as an important vestige of their great power status.

Thus, while the threat of Russian NSNW may be neither particularly great nor immediate, there remains potential for “backsliding” to a point where the threat could materialize, in addition to the potential for “loose nukes” falling into the wrong hands.

What is to be Done?

A key U.S. objective has been, and remains, to avoid negotiations or agreements that risk creating a 'slippery slope' toward the withdrawal of U.S. nuclear weapons from Europe. The weapons may have little or no military utility, but their political significance to the Alliance and to potential adversaries of the Alliance continues to be extremely important. NATO allies have all agreed that U.S. nuclear weapons in Europe help keep the peace and deter potential armed conflicts. The weapons also symbolize America's leadership of the Alliance and its commitment to NATO's security. This, in conjunction with technical difficulties associated with implementing a formal regime, suggests that there is little to recommend formal NSNW arms control.

With so many fundamental questions lacking good answers, a formal, legally binding arms control agreement that limits, reduces, or bans NSNW is not likely in the near term. Concluding and implementing such an agreement would be especially difficult — conceptually, technically, politically, and practically.

What, then, is to be done? First, the issue needs to be re-cast as a nuclear warhead problem, not as an NSNW issue. NSNW could be addressed in a broader nuclear warhead transparency regime that includes both strategic and non-strategic nuclear warheads. This would get around the problem of defining NSNWs and also avoid the problems inherent to a delivery system-based or location-based approach. A warhead would be a warhead, whether it is declared to be strategic or non-strategic. Such a regime would not address Russian NSNW directly, but it would be a start, and it would help reduce troubling uncertainties about the size and composition of Russia's overall stockpile and its nuclear warhead production and elimination infrastructure, as well as about the disposition of fissile material from dismantled warheads.

A transparency regime may also be easier to negotiate and implement than a verification regime because transparency need

not attain the same standard of confidence necessary for formal arms reduction agreements. That is, transparency need not be so intrusive. There should be no illusion, however, that negotiating a transparency regime would be easy. Russia does not like the idea of nuclear warhead transparency and so far it has not engaged substantively on any U.S. warhead transparency proposals. However, in the March 1997 Helsinki Joint Statement, which established a framework for START III, the United States and Russia made a commitment to explore transparency and confidence building measures relating to tactical nuclear systems. At the Cologne G-8 summit in June 1999, they made a commitment to begin bilateral START III discussions. During the course of these regular senior level discussions, the United States followed up on its Helsinki commitment by proposing transparency measures for U.S. and Russian nuclear warheads—both strategic and non-strategic. These initial warhead transparency efforts would be a means to gain practical experience that could eventually facilitate the negotiation of treaty provisions on the dismantlement and permanent removal of nuclear warheads from U.S. and Russian stockpiles. This could help lay the groundwork for the eventual monitoring, verification, and elimination of warhead stockpiles.

Conclusion

With the Cold War over and enthusiasm waning for negotiating new, formal arms control agreements involving complex monitoring and verification regimes, legally binding controls aimed specifically at NSNW do not seem to be technically or politically practical. A more promising approach appears to be a generic nuclear warhead transparency regime that does not try to distinguish between strategic and non-strategic nuclear warheads. Such a regime might cover warhead stockpiles, infrastructure, dismantlement, and disposition of fissile material from dismantled weapons. The experience gained in such a regime could pave the way for possible strategic and non-strategic nuclear warhead stockpile reductions in the future to complement deeper negotiated or unilateral reductions in strategic offensive weapons.

Endnotes

¹ The views expressed in this paper are those of the authors. They are not intended to reflect the views of the U.S. Government or the Department of State.

² General Shelton made this statement in testimony before the Senate Armed Services Committee on May 23, 2000. According to an unofficial estimate from the non-governmental Natural Resources Defense Council (NRDC), the United States has approximately 1,670 non-strategic nuclear warheads: 1,350 B-61 gravity bombs and 320 W-80 warheads for Tomahawk SLCMs. See NRDC Nuclear Notebook: U.S. Nuclear Forces 2000, *The Bulletin of the Atomic Scientists*, May/June 2000, Vol. 56, No. 3, p. 69; www.Bullatomsci.org/issues/nukenotes/mj00nukenote.html.

³ FBIS, Pavel Felgengauer, "Limited Nuclear War? Why Not! Russia's New Defense Concept Could Include Precision Use of Nuclear Weapons," *Moscow Segodnya*, May 6, 1999, pp. 1-2. Also see David Yost's Chapter 9 where this subject is covered in detail.